#### **October 2021: Month In Review**





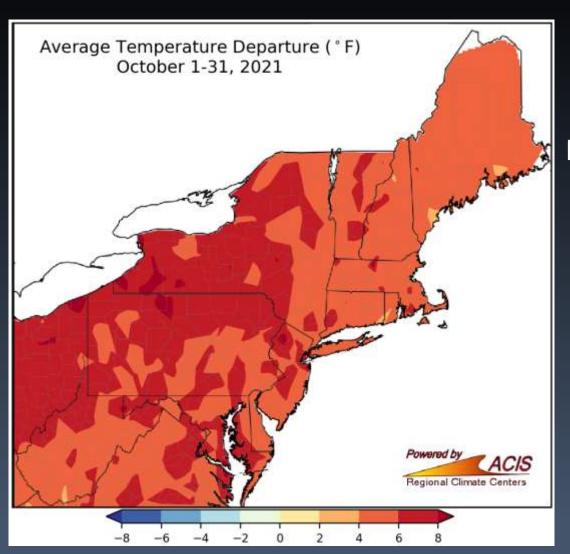
## **October Monthly Temperatures**



| Location       | Oct Avg<br>Max T<br>(Departure) | Oct Avg<br>Min T<br>(Departure) | Oct Avg T<br>(Departure) | # of 75°+<br>Days |
|----------------|---------------------------------|---------------------------------|--------------------------|-------------------|
| Binghamton,    | 62.1°                           | 47.7°                           | 54.9°                    | 1 Day             |
| NY (Airport)   | (+5.0)                          | (+7.2)                          | (+6.1°)                  |                   |
| Syracuse, NY   | 67.3°                           | 50.8°                           | 59.0°                    | 9 Days            |
| (Airport)      | (+7.2°)                         | (+8.4°)                         | (+7.7°)                  |                   |
| Avoca          | 67.7°                           | 51.0°                           | 59.4°                    | 5 Days            |
| (Scranton), PA | (+4.6°)                         | (+7.7°)                         | (+6.2°)                  |                   |

### **October Monthly Temperatures**





October feature well above average temperatures across the entire area.
Ranging from about 5 to 8°F above normal

\*Record warmest October for Syracuse, NY at 59.0°, which is 7.7°F above avg.

\*Record warmest October for Scranton, PA at 59.4° which is 6.2°F above avg.

Map Courtesy of the Northeast Regional Climate Center



#### **October Monthly Temperature**



## **Records: Syracuse NY**

**#1 Warmest October Avg Temperature** 

| Rank | Value             | Ending Date | Missing Days |
|------|-------------------|-------------|--------------|
| 1    | <mark>59.0</mark> | 2021-10-31  | 0            |
| 2    | 58.0              | 2007-10-31  | 0            |
| 3    | 57.8              | 1947-10-31  | 0            |
| 4    | 57.4              | 1920-10-31  | 0            |
| 5    | 57.0              | 2017-10-31  | 0            |

**#5 Warmest October Max Temperature** 

| Rank | Value | Ending Date | Missing Days |
|------|-------|-------------|--------------|
| 1    | 72.2  | 1947-10-31  | 0            |
| 2    | 69.8  | 1963-10-31  | 0            |
| 3    | 68.3  | 1946-10-31  | 0            |
| 4    | 67.3  | 2007-10-31  | 0            |
| 5    | 67.3  | 2021-10-31  | 0            |

**#1 Warmest October Min Temperature** 

| Rank | Value | Ending Date | Missing Days |
|------|-------|-------------|--------------|
| 1    | 50.8  | 2021-10-31  | 0            |
| 2    | 49.4  | 1920-10-31  | 0            |
| 3    | 48.7  | 2007-10-31  | 0            |
| 4    | 47.7  | 1931-10-31  | 0            |
| 5    | 46.8  | 1932-10-31  | 0            |

Very warm (warmest for October) overnight lows really contributed to making this the warmest October on record for Syracuse NY. Daytime highs were the 5<sup>th</sup> warmest on record for October as well.



#### **October Monthly Temperature**



#### **Records: Avoca PA**

#### **#1 Warmest October Avg Temperature**

| Rank | Value | Ending Date | Missing Days |
|------|-------|-------------|--------------|
| 1    | 59.4  | 2021-10-31  | 0            |
| 2    | 59.1  | 1947-10-31  | 0            |
| 3    | 59.0  | 2007-10-31  | 0            |
| 4    | 58.6  | 2017-10-31  | 0            |
| 5    | 58.0  | 1984-10-31  | 0            |

#### **#1 Warmest October Min Temperature**

| Rank | Value | Ending Date | Missing Days |
|------|-------|-------------|--------------|
| 1    | 51.0  | 2021-10-31  | 0            |
| 2    | 49.2  | 1984-10-31  | 0            |
| 3    | 48.8  | 2007-10-31  | 0            |
| 4    | 48.4  | 1913-10-31  | 0            |
| 5    | 48.1  | 2017-10-31  | 0            |

#### **#8 Warmest October Max Temperature**

| Rank | Value             | Ending Date | Missing Days |
|------|-------------------|-------------|--------------|
| 1    | 72.2              | 1947-10-31  | 0            |
| 2    | 69.8              | 1963-10-31  | 0            |
| 3    | 69.1              | 2007-10-31  | 0            |
| 4    | 69.1              | 2017-10-31  | 0            |
| 5    | 68.5              | 1920-10-31  | 0            |
| 6    | 68.2              | 1949-10-31  | 0            |
| 7    | 67.8              | 1946-10-31  | 0            |
| 8    | <mark>67.7</mark> | 2021-10-31  | 0            |

➤ Very warm (warmest on record for October) overnight lows really contributed to making this the overall warmest October on record for Avoca PA. Daytime highs were the 8<sup>th</sup> warmest on record for October as well.



#### **October Monthly Temperature**



#### **Records: Binghamton NY**

**#3**<sup>th</sup> Warmest October Avg Temperature

| Rank   | Value   | <b>Ending Date</b> | Missing Days    |
|--------|---------|--------------------|-----------------|
| 1      | 56.8    | 2007-10-31         | 0               |
| 2      | 55.4    | 1971-10-31         | 0               |
| 3      | 54.9    | 2021-10-31         | 0               |
| 4      | 54.8    | 1963-10-31         | 0               |
| 5      | 54.6    | 2017-10-31         | 0               |
| 6      | 54.0    | 1984-10-31         | 0               |
| 7      | 53.8    | 1995-10-31         | 0               |
| 8      | 53.2    | 1961-10-31         | 0               |
| 9      | 52.6    | 1973-10-31         | 0               |
| 10     | 52.5    | 2013-10-31         | 0               |
| Period | of reco | ord: 1951-05-25    | 5 to 2021-11-03 |

#### **#2 Warmest October Min Temperature**

| Rank   | Value   | <b>Ending Date</b> | Missing Days    |
|--------|---------|--------------------|-----------------|
| 1      | 48.7    | 2007-10-31         | 0               |
| 2      | 47.7    | 2021-10-31         | 0               |
| 3      | 47.5    | 1971-10-31         | 0               |
| 4      | 45.5    | 2017-10-31         | 0               |
| 5      | 44.9    | 1995-10-31         | 0               |
| 6      | 44.5    | 2013-10-31         | 0               |
| 7      | 44.3    | 1984-10-31         | 0               |
| -      | 44.3    | 1970-10-31         | 0               |
| 9      | 43.9    | 1954-10-31         | 0               |
| 10     | 43.9    | 1963-10-31         | 0               |
| Period | of reco | ord: 1951-05-25    | 5 to 2021-11-03 |

#8<sup>th</sup> Warmest October Max Temperature

| Rank   | Value   | <b>Ending Date</b> | Missing Days    |
|--------|---------|--------------------|-----------------|
| 1      | 65.7    | 1963-10-31         | 0               |
| 2      | 64.9    | 2007-10-31         | 0               |
| 3      | 63.8    | 2017-10-31         | 0               |
| 4      | 63.7    | 1984-10-31         | 0               |
| 5      | 63.2    | 1971-10-31         | 0               |
| 6      | 63.0    | 1961-10-31         | 0               |
| 7      | 62.6    | 1995-10-31         | 0               |
| 8      | 62.1    | 2021-10-31         | 0               |
| 9      | 62.1    | 1953-10-31         | 0               |
| 10     | 61.4    | 1973-10-31         | 0               |
| Period | of reco | ord: 1951-05-2     | 5 to 2021-11-03 |

➤ Very mild (2<sup>nd</sup> warmest on record for October) overnight lows significantly contributed to making this the 3<sup>rd</sup> warmest October on record for Binghamton NY. Daytime highs were only the 8<sup>th</sup> warmest on record.



### First Freeze (<32°F) Dates



#### **Avoca Airport: 6<sup>th</sup> (Tied) Latest**

| Year              | Last         | Value | First        | Value | Season Length |
|-------------------|--------------|-------|--------------|-------|---------------|
| 1946              | 04-27 (1946) | 32    | 11-15 (1946) | 29    | 201           |
| 1920              | 04-11 (1920) | 30    | 11-11 (1920) | 30    | 213           |
| 1927              | 04-26 (1927) | 32    | 11-06 (1927) | 31    | 193           |
| 1973              | 05-17 (1973) | 31    | 11-05 (1973) | 30    | 171           |
| 1971              | 04-25 (1971) | 31    | 11-05 (1971) | 32    | 193           |
| 1995              | 04-17 (1995) | 30    | 11-04 (1995) | 31    | 200           |
| <mark>2021</mark> | 04-22 (2021) | 30    | 11-03 (2021) | 31    | 194           |
| 1998              | 04-27 (1998) | 30    | 11-03 (1998) | 26    | 189           |

#### **Binghamton Airport: 2<sup>nd</sup> Latest**

| Year | Last         | Value | First        | Value | Season Length |
|------|--------------|-------|--------------|-------|---------------|
| 1971 | 04-25 (1971) | 30    | 11-05 (1971) | 29    | 193           |
| 2021 | 05-01 (2021) | 30    | 11-02 (2021) | 32    | 184           |
| 1998 | 04-27 (1998) | 28    | 10-31 (1998) | 32    | 186           |
| 1973 | 05-18 (1973) | 32    | 10-31 (1973) | 32    | 165           |
| 2007 | 04-26 (2007) | 32    | 10-29 (2007) | 30    | 185           |
| 2011 | 04-22 (2011) | 29    | 10-27 (2011) | 32    | 187           |
| 2005 | 05-13 (2005) | 29    | 10-25 (2005) | 32    | 164           |
| 1979 | 05-05 (1979) | 32    | 10-25 (1979) | 31    | 172           |

#### **Syracuse Airport: 8th (Tied) Latest**

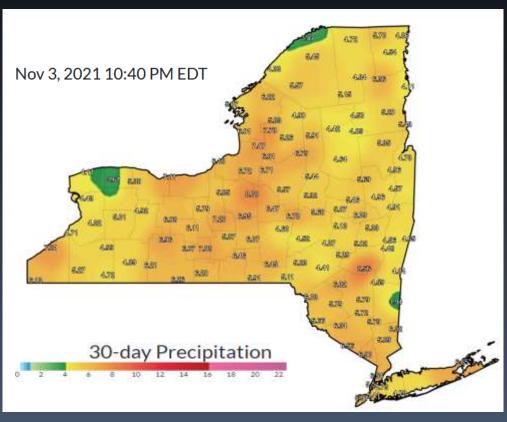
| Year | Last         | Value | First        | Value | Season Length |
|------|--------------|-------|--------------|-------|---------------|
| 2014 | 04-20 (2014) | 29    | 11-13 (2014) | 32    | 206           |
| 2005 | 05-13 (2005) | 30    | 11-12 (2005) | 30    | 182           |
| 1931 | 04-15 (1931) | 32    | 11-06 (1931) | 30    | 204           |
| 1918 | 04-26 (1918) | 32    | 11-06 (1918) | 31    | 193           |
| 1971 | 04-18 (1971) | 29    | 11-05 (1971) | 32    | 200           |
| 2019 | 04-29 (2019) | 30    | 11-04 (2019) | 32    | 188           |
| 1998 | 04-29 (1998) | 32    | 11-04 (1998) | 29    | 188           |
| 2021 | 04-22 (2021) | 29    | 11-03 (2021) | 32    | 194           |
| 1932 | 04-27 (1932) | 32    | 11-03 (1932) | 30    | 189           |
| 1924 | 04-20 (1924) | 32    | 11-03 (1924) | 31    | 196           |

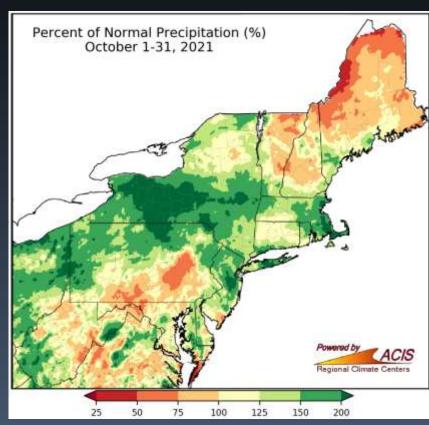


## October Regional Rainfall Maps



Above average rainfall in October was again the rule for just about all of Central NY and Northeast PA; with totals ranging from 125-200% of normal, with a numerous locations in the Finger lakes/CNY surpassing 200% of normal rainfall.





Map Courtesy of the New York Mesonet

Map Courtesy of the Northeast Regional Climate Center



## **October Monthly Rainfall Totals**



| Location       | October Rainfall<br>Total<br>(Departure) | Greatest 1-Day Rain Total (Date Occurrence) | Oct. Monthly Rainfall Rank (#1 Wettest & Year) |
|----------------|--|---|--|
| Binghamton,    | 6.27"                                    | <b>2.49"</b> Oct 26 <sup>th</sup>           | 9 <sup>th</sup> wettest                        |
| NY (Airport)   | +2.51"                                   |   | (9.43" in 1955)                                |
| Syracuse, NY   | 7.48"<br>+3.59"                          | <b>2.33"</b> Oct 26 <sup>th</sup>           | 3 <sup>rd</sup> wettest<br>(8.29" in 1955)     |
| Avoca          | 4.55"                                    | <b>1.50"</b> Oct 26 <sup>th</sup>           | 22 <sup>nd</sup> wettest                       |
| (Scranton), PA | +0.84                                    |   | (9.16" in 1927)                                |

### 3<sup>rd</sup> Wettest October on Record:



#### Syracuse NY

# Maximum 1-Month Total Precipitation for Syracuse Area, NY (ThreadEx)

| Rank                                       | Value | <b>Ending Date</b> | Missing Days |  |
|--|-------|--------------------|--------------|--|
| 1  | 8.29  | 1955-10-31         | 0            |  |
| 2  | 7.69  | 2016-10-31         | 0            |  |
| 3  | 7.48  | 2021-10-31         | 0            |  |
| 4  | 7.15  | 1959-10-31         | 0            |  |
| 5  | 6.88  | 2019-10-31         | 0            |  |
| 6  | 6.83  | 1937-10-31         | 0            |  |
| 7  | 6.66  | 1981-10-31         | 0            |  |
| 8  | 6.57  | 1995-10-31         | 0            |  |
| 9  | 6.53  | 1976-10-31         | 0            |  |
| 10   | 6.52  | 1945-10-31         | 0            |  |
| Period of record: 1902-09-01 to 2021-11-03 |       |                    |              |  |



#### 9th Wettest October on Record:



#### **Binghamton NY**

Maximum 1-Month Total Precipitation for Binghamton Area, NY (ThreadEx)

| Rank                                       | Value | <b>Ending Date</b> | Missing Days |
|--|-------|--------------------|--------------|
| 1  | 9.43  | 1955-10-31         | 0            |
| 2  | 7.92  | 2005-10-31         | 0            |
| 3  | 7.85  | 2019-10-31         | 0            |
| 4  | 7.62  | 1959-10-31         | 0            |
| 5  | 7.19  | 1990-10-31         | 0            |
| 6  | 7.15  | 1962-10-31         | 0            |
| 7  | 6.68  | 1995-10-31         | 0            |
| 8  | 6.30  | 1976-10-31         | 0            |
| 9  | 6.27  | 2021-10-31         | 0            |
| 10   | 5.83  | 2016-10-31         | 0            |
| Period of record: 1951-05-25 to 2021-11-03 |       |                    |              |



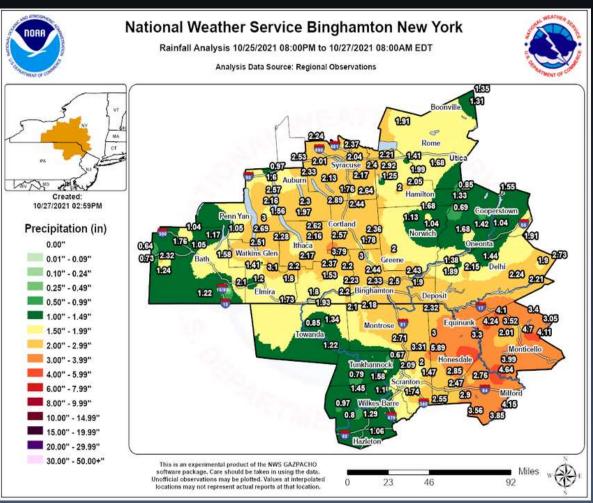
## Significant Weather Events in October



## Nor'easter Brings Heavy Rain &

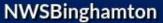






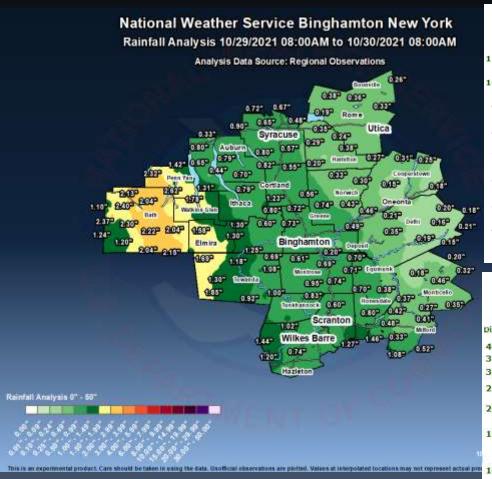
Widespread 2 – 5" rainfall totals reported



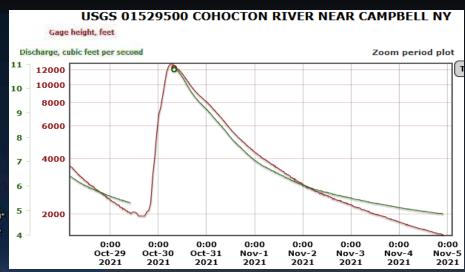


# Heavy Rain & Flooding: Chemung Basin 10/29 & 10/30 2021





Minor Flood stage surpassed at Campbell NY (10.0'), and Elmira NY (12.0')







## **Summary**

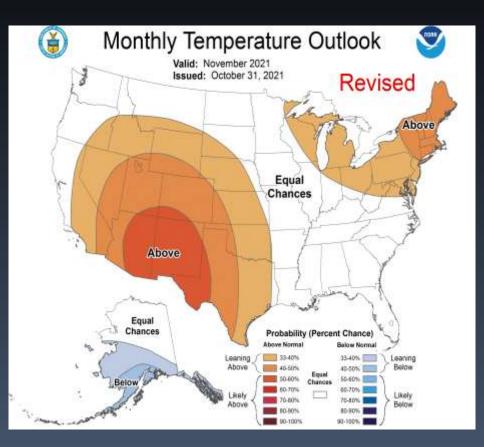
- October was another very wet and warm month for the majority of Central NY and Northeast PA
- A few locations had their warmest October's on record, and others saw record breaking rainfall
- All of this heavy rain brought two rounds of flooding late in the month; the first centered on the upper Susquehanna and Delaware Basins. The second event brought mainly minor flooding to the Chemung River Basin and eventually long lingering flooding to some of the Finger Lakes and Seneca River Basin
- Numerous locations did not reach < 32°F during the month, marking one of the latest first freezes on record (all 3 climate sites finally reached 32 or lower in the first week of November

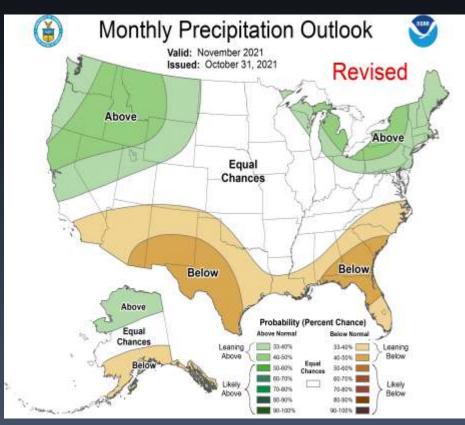
#### **November Outlook**



#### **Temperature Outlook**

#### **Precipitation Outlook**





Above Average Temperatures Favored for the Month Across CNY & NE PA

Near, to Slightly Above Average Rainfall Favored Across CNY & NE PA



# Thank You!



NWSBinghamton weather.gov/bgm/